

POZDYSHEV, V.A.; PENTIN, Yu.A.; TATEVSKIY, V.M.

Kinetics of the rotational isomerization reaction. Dokl. Ak SSSR
114 no.3:583-585 My '57. (MLRA 10:8)

1. Predstavлено академиком А.Н. Фрумкиным.
(Isomerization)

Pozdyshev, V.A.

Infrared absorption spectra of some haloalkenes in liquid and solid states and the number of configurations of rotational isomers. V. A. Pozdyshev, Yu. A. Pentin, and V. M. Talyzkin. Optika i Spektroskopiya 3, 211-20 (1957).

The no. and relative stability of various rotational isomeric configurations were detd. by the method of comparison of infrared absorption spectra of 1,2-dichloroethane (I) ($\nu_{\text{cm}^{-1}}$ 82.5°, $\nu_{\text{cm}^{-1}}$ 14443), 1-chloropropane (II) ($\nu_{\text{cm}^{-1}}$ 45.0°, $\nu_{\text{cm}^{-1}}$ 13890), 1,2-dibromopropane (III) ($\nu_{\text{cm}^{-1}}$ 140.5°, $\nu_{\text{cm}^{-1}}$ 15209), 1,2-dibromobutane (IV) ($\nu_{\text{cm}^{-1}}$ 54.5°, $\nu_{\text{cm}^{-1}}$ 1.5147), 1-bromo-2-methylpropane (V) ($\nu_{\text{cm}^{-1}}$ 91°, $\nu_{\text{cm}^{-1}}$ 1.4345), 1-bromo-3-methylbutane (VI) ($\nu_{\text{cm}^{-1}}$ 117°, $\nu_{\text{cm}^{-1}}$ 1.4412), and 1,4-dibromobutane (VII) ($\nu_{\text{cm}^{-1}}$ 194.5°, $\nu_{\text{cm}^{-1}}$ 1.5175) in liquid and solid states. The spectra of these substances consisted of the following frequencies ($\pm 1 \text{ cm}^{-1}$): I, H 1453, 1433, 1318, 1290, 1238, 1147, 1129, 1035, 1010, 947, 884, 773, 715, 677, 655; II, H 1453, 1231, 1128, 1009, 976, 773, 753, 713; III, H 1453, 1443, 1382, 1368, 1342, 1310, 1281, 1205, 1153, 1118, 1051, 1033, 1024, 984, 929, 890, 883, 861, 789, 731, 640, 618; IV, H 1465, 1377, 1342, 1262, 1162, 1132, 1108, 1080, 1061, 1020, 897, 861, 748, 718, 610; III, H 1448, 1427, 1384, 1372, 1332, 1309, 1228, 1217, 1203, 1174, 1128, 1116, 1093, 1035, 996, 982, 907, 898, 860, 847, 833, 782, 653, 570, 549, 530; VI, H 1457, 1432, 1398, 1382, 1347, 1295, 1212, 1185, 1164, 1117, 1095, 1034, 916, 901, 847, 825, 770, 648, 593, 567; VII, H 1454, 1441, 1304, 1265, 1234, 1191, 1165, 1135, 1052, 1039, 1003, 962, 912, 875, 848, 798, 787, 763, 749, 726, 646, 555;

P02D YSHEV, V.A.; PENTJIN, Yu I; TATEVSKIY, V.M.

VIL, H 1466, 1449, 1272, 1179, 1902, 879, 750, 560; VI, H
1469, 1434, 1390, 1374, 1321, 1278, 1233, 1198, 1164,
1138, 1104, 1054, 055, 040, 924, 861, 805, 783, 054, 623;
V, H 1470, 1431, 1387, 1372, 1323, 1284, 1236, 1185, 1170,
1137, 1090, 1085, 1043, 1007, 958, 639, 918, 830, 801,
793, 647, 620; VI, H 1466, 1448, 1401, 1385, 1346, 1308,
1279, 1219, 1203, 1190, 1177, 1036, 1016, 1000, 964, 949,
926, 885, 886, 816, 763, 751, 648, 622, 567; VI, H 1448
1421, 1372, 1351, 1319, 1290, 1254, 1209, 1182, 1173, 1152,
1005, 979, 955, 919, 888, 783, 765, 753, 646, 620, 567
20 references.

4E3d,
4E4g

A.P. *[Signature]*

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POZDYSHEV, V.A.; PENTIN, Yu.A.; TATEVSKIY, V.M.

Kinetics of the rotation isomerization reaction. Vest. Mosk. un.
Ser. mat., mekh., astron., fiz. khim., 12 no.5:221-226 '57.
(MIRA 11:9)

1. Laboratoriya molekuryarnoy spektroeskopii Moskovskogo gosudarstvennogo
universiteta.

(Isomerization)

PERIODIC REPORTS ON THE STATE OF
THE RUSSIAN PHARMACEUTICAL INDUSTRY

Integrated intensification of production of the pharmaceutical
industry series. Izv. Akad. Nauk SSSR. Ser. 5: Chem. i khim. tekhnika.
OMKA 1972.

2. Institut khimicheskogo rasteniy AN RKKR i Vsesoyuznyj
Institut lekarstvennykh i aromaticheskikh rasteniy.

Pozdyshev, V. A.

31-3-3/14

AUTHORS: Pozdyshev, V. A., Pentin, Yu. A. and Tatevskiy, V. M.

TITLE: Infrared Spectra of Absorption by Certain Halogenated Alkanes in Liquid and Solid States and the Problem of Number and Configuration of Rotational Isomers.
(Infrakrasnyye spektry pogloshcheniya nekotorykh galoidalkanov v zhidkem i tverdom sostoyaniyakh i vopros o chisle i konfiguratsiyakh poverotnykh izomerov.)

PERIODICAL: Optika i Spektroskopiya, 1957, Vol.III, Nr.3, pp.211-220.
(USSR)

ABSTRACT: At low temperatures concentrations of certain isomers are so small that their spectral lines or bands disappear. A "freezing" method based on this effect (Refs.1, 2, 3) was used by the present authors for comparison of infrared spectra of absorption by liquids and frozen substances. The results obtained were used to find the number, configuration and relative stability of rotational isomers in certain fairly complex halogenated alkanes.

Card 1/4 The following substances were studied: (1) 1,2-dichloroethane,

SI-3-3/14

Infrared Spectra of Absorption by Certain Halogenated Alkanes in Liquid and Solid States and the Problem of Number and Configuration of Rotational Isomers.

(2) propyl chloride, (3) 1,2-dibromopropane,
(4) 1,2-dibromobutane, (5) isobutyl bromide,
(6) isoamyl bromide, (7) 1,4-dibromobutane. Infrared absorption spectra of these substances were obtained for the region of 450 to 1500 cm^{-1} . In freezing of the liquids the lowest temperature used was about -175°C. Figs. 2 & 3 show spectra of the substances studied in liquid and solid state respectively. For 1,2-dichloroethane three C_{2h} rotational forms were found and two C_2 forms. In the solid state only one C_{2h} form remains. Rotational isomeric configurations of propylchloride are two in number (C_S and C_1 forms). In the solid state only one trans-form remains in propylchloride. The 618 cm^{-1} frequency was difficult to interpret. Infrared spectra of the liquid and crystalline states of isobutyl bromide were identical. The authors conclude that either C_S and C_1 configurations exist both in the

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SI-3-3/14

Infrared Spectra of Absorption by Certain Halogenated Alkanes in Liquid and Solid States and the Problem of Number and Configuration of Rotational Isomers.

liquid and solid states, or only one configuration exists in both states. The authors find themselves unable to decide this point. For 1,2-dibromopropane three rotational isomers were suggested. Again no difference between the liquid and solid-state spectra was observed. The 1138 cm^{-1} frequency, which is more intense in the solid state, is assigned to the trans-distribution of bromine atoms, the 1228 and 1205 cm^{-1} frequencies are assigned to the two other isomers. Molecules of isoamyl bromide and 1,2-dibromobutane have each two C-C bonds which permit rotational isomerism. In both these substances two rotational isomeric configurations are observed, both of which are stable in liquid and solid states. For 1,4-dibromobutane six theoretical configurations of the liquid state are shown in Fig.5. In the crystalline state of this substance only one isomer remains which has a mirror-rotational axis of the

Card 3/4

51-3-5/14

Infrared Spectra of Absorption by Certain Halogenated Alkanes in Liquid and Solid States and the Problem of Number and Configuration of Rotational Isomers.

second order (Fig.5, Formula 6). There are 6 figures and 20 references, 4 of which are Slavic.

SUBMITTED: January 8, 1957.

AVAILABLE: Library of Congress

Card 4/4

BOBROV, V.S.; LUTUGINA, N.V.; MOLODENKO, P.Ya.; ZAKHAR'YEVSkiY,
M.S.; STEFANOVA, O.K.; BELYUSTIN, A.A.; MATEROVA, Ye.A.;
NIKOL'SKiY, B.P., otv. red.; POZDYSHEVA, V.A., red.

[Theoretical and practical guide to laboratory work in
physical chemistry] Teoreticheskoe i prakticheskoe ruko-
vodstvo k laboratornym rabotam po fizicheskoi khimii.
[Leningrad] Izd-vo Leningr. univ. Pt.1. 1965. 197 p.
(MIRA 18:12)

1. Leningrad. Universitet. 2. Chlen-korrespondent AN SSSR
(for Nikol'skiy).

YERMILOV, German Vasil'evich; et al. (eds.), *etc.*, 1961.

[Literature on inorganic chemical analysis; a manual for students] Literatura po neorganicheskoi khimicheskoi analizu; posobie dlia studentov. Leningrad, Leningr. univ. 1961. 56 p.

AKHUMOV, Yevgeniy Ivanovich; VYAZOVOV, V.V., red.; POZDYSHEVA, V.A., red.;
ERLIKH, Ye.Ya., tekhn.red.

[Study of supersaturated aqueous salt solutions] Issledovanie
peresyshchennykh-vodnykh rastvorov solei. Leningrad, Gos.nauchno-
tekhn.izd-vo khim. lit-ry, 1960. 127 p. (Leningrad. Vsesoiuznyi
nauchno-issledovatel'skii institut galurgii. Trudy, no.42)
(MIRA 14:7)

(S6lution (Chemistry))

STORONKIN, A.V., doktor khim. nauk, otv. red.; LILICH, L.S.,
kand. khim. nauk, otv. red.; POZDYSHEVA, V.A., red.

[Chemistry and the thermodynamics of solutions] Khimiia
i termodinamika rastvorov. Leningrad, 1964. 261 p.
(MIRA 18:1)

1. Leningrad. Universitet.

VVEDENSKIY, Aleksandr Aleksandrovich; POZDYSHEVA, V.A., red.; FOMKINA, T.A.,
tekhn. red.

[Physicochemical constants of organic compounds] Fiziko-khimicheskie
konstanty organicheskikh soedinenii. Leningrad, Gos. nauchno-tekhn.
izd-vo khim. lit-ry, 1961. 123 p. (MIRA 14:7)
(Organic compounds) (Thermodynamics)

MORACHEVSKIY, Yury Vital'yevich [deceased]; TVERKOVSKAYA,
Irina Aleksandrovna; KHITOVICH, Yu.N., kand. khim.
nauk, stv. red.; POZHIGNEVA, V.A., red.

[Principles of the analytical chemistry of the rare
elements] Osnovy analiticheskoi khimii redkikh ele-
mentov. Leningrad, Izd-vo Leningr. univ., 1964.
182 p. (MIRA 18:2)

SOKOLOV, Pavel Nikolayevich; PODDYOMEVA, V A., red.

[Chemical sources of electric power] Khimicheskie
istsochniki elektricheskoi energii. Leningrad, Izd-vo
Leningr. univ., 1965. 19 p. (Khimika v uzakh, no.2)
(MIRA 18.10)

KASATKINA, N.G.; POZDNEVA, V.A.

Anomalous products of diallyl ozonolysis. Vest.IGU 20
no.22:150-153 '65. (MIRA 18:12)

BALZHI, M.F.; BEREZKIN, P.N.; GOL'DSHTEYN, Ya.Ye.; GAL'PERIN, Ye.B.;
YEDLICHKO, V.V.; KERAS, A.F.; LEKUS, I.D.; POTEKUSHIN, N.V.;
POZDNYSHOV, V.M.; SURBOTIN, N.A.; SAVINTSEV, R.I.; TAVAROVSKIY,
V.M.; SHEREMET'YEV, A.D.; BAKSHI, O.A., kand. tekhn. nauk,
retsenzent; BONDIN, Ye.A., inzh., retsenzent; BOYKO, F.I., inzh.,
retsenzent; VASIN, Yu.P., inzh., retsenzent; LAZAREV, A.A., inzh.,
retsenzent; SOROKIN, A.I., inzh., retsenzent; KON'KOV, Arkadiy
Sergeevich, dots., red.; DUGINA, N.A., tekhn. red.

[Economy of metals in the machinery industry]Ekonomia metallov
v mashinostroenii. [By]M.F.Balzhi i dr. Moskva, Mashgiz, 1962.
235 p.

(MIRA 16:2)

(Machinery--Design and construction)
(Metals, Substitutes for)

FANTALOV, L.I.; POZDNYSHEV, V.M.

Some characteristics of magnesium cast iron production.
Lit. proizv. no.6:26-27 Je '64. (MIRA 18:5)

KRYGIN, B.T., inzh.; POZDNYSHEV, V.M., kand. tekhn. nauk.

Advanced techniques for metal teeming in foundries. Bezop. truda
v prom. 2 no.12:30-31 D '58. (MIRA 11:12)
(Foundry)

SOROKIN, P.I.; POZDNYSHOV, V.M.; POPOV, V.F.; BALINSKIY, V.R.; LESNIKOVICH, S.S.

Casting magnesium iron crankshafts. Lit. proizv. no.5:8-9 My '62.
(MIRA 16:3)

(Crankshafts and cranks)

(Iron founding)

PoZDNYSHEV, V. M.

Modification of trad. V. M. PoZdnyshev, U.S.S.R.
103,489, Aug. 28, 1958. Fe is modified with Mg or its
alloys by placing the ladle contg. the Fe in a hermetically
sealed chamber. A pos. pressure of either air or a protective
gas is maintained in this chamber over the Fe in order to
better utilize the modifier and provide for better working
conditions. M. Hoseh

ZLOBINSKIY, B.M., BARBER, I.I., RAZUMOVA, P.I., POZDNYYSHEV, V.M., KHUTORSKAYA,
Ye.S., red.izd-va., ISLENT'YEVA, P.G., tekhn.red.

[Laboratory work for the course "Fundamentals of safety engineering."]
Laboratornye raboty po kursu "Osnovy tekhniki bezopasnosti." Moskva,
Gos. nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii,
1958. 57 p.
(Industrial safety)

POZDNYSHOV, V. M.

POZDNYSHOV, V. M.: "Labor safety in modifying cast iron with manganese". Moscow, 1955. Min Higher Education USSR. Moscow Order of Labor Red Banner Inst of Steel imeni I. V. Stalin. (Dissertations for the degree of Candidate of Technical Science.)

SO: Knizhnaya Letopis' No. 50 10 December 1955. Moscow.

122-4
FCB/DR/MLHNA, E.S.
122-4
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(4)
5

✓ 2357* Investigation of the Surface Tension of the Alloy
Lead-Cadmium on the Boundary With Molten Eutectics
LiCl-KCl and in Vacuum. (Russian.) V. A. Kuznetsov; V. P.
Kochergin; M. V. Tishchenko; and E. G. Pozdnyshova; *Doklady*
Akademii Nauk SSSR, v. 92, no. 6, Oct. 21, 1953, p. 1107.
1199.

Investigates electrocapillary phenomena of surface tension in
a vacuum. All measurements were made at temperatures in
above 450°C. Graphs. 11 ref.

KOZLOV, Nikolay Fedorovich; SHALUN, Grigoriy Borisovich; POZDYSHEVA,
V.A., red.; FOMKINA, T.A., tekhn. red.

[Decorative laminated plastics] Dekorativnyi gloistyi plastik.
Leningrad, Gos. nauchno-tekhn. izd-vo khim. lit-ry, 1961. 76 p.
(MIRA 15:3)
(Laminated plastics)

POZDYNIN, V.D. (Leningrad)

Water temperature measurements at sea. Okeanologija 4 no.1:
132-141 '64. (MIRA 17:4)

POZDYNIN, V.D. (Leningrad)

Accuracy of measurements of water temperature by the vertical
sounding method. Meteor.i gidrol. no.11:54-56 N '62.
(MIRA 15:12)
(Ocean temperature—Measurement)

FEDINER, E. C.

Pozdnyak, E. G. Infinitesimal deformation²⁶ of a cylindrical belt. Uspehi Matem. Nauk (N.S.) 2, no. 4(20), 170-174 (1947). (Russian)

Let the surface S in E^3 be sufficiently smooth and homeomorphic to a cylindrical belt and such that the boundary curves L_1, L_2 are closed convex curves with nonvanishing curvature in nonparallel planes. If S undergoes a nontrivial infinitesimal (isometric) deformation, then for a given $\epsilon > 0$ at least one L_i contains points with distance less than ϵ whose distance is increased. If \tilde{S} originates from S by adding the plane areas bounded by L_1 and L_2 , then S is rigid of the first order under infinitesimal deformations of \tilde{S} .

H. Busemann (Los Angeles, Calif.).

3
I-F/W

Source: Mathematical Reviews,

Vol 10 No. 1

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001342820003-8

FCZDYUNIK, V. A.

Encyclopedia of Ship Construction, N/L, 1951

MA Report, Confidential (?)

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001342820003-8"

POZDYSHEV, V.I., aspirant

Provide textile enterprises with permanent specialized personnel.
Tekst. prom. 25 no.4:5-7 Ap '65. (MIRA 18 5)

1. Ekonomicheskiy fakul'tet Moskovskogo gosudarstvennogo
universiteta.

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001342820003-8

PALADINER, J. L.

DECLASSED 1953

sec ILC

MARINE Eng.

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001342820003-8"

KUZNETSOV, Stepan Petrovich; POZDNYSHEV, V.M., kand. tekhn. nauk,
nauchnyy red.; SVET, Ye.B., red.; KOLBICHEV, V.I., tekhn. red.

[Aid to an iron melter] V pomoshch' plavil'shchiku chuguna.
Cheliabinsk, Cheliabinskoe knizhnoe izd-vo, 1962. 133 p.
(MIRA 15:12)

(Iron founding) (Cupola furnaces)

KEYS, N.V.; SINITSYN, A.A.; POZDNYSHOV, V.M.; SAMARIN, A.P.; YARTSEVA, T.N.;
Prinimali uchastiye: BENDOVSKIY, B.M.; CHUTCHEV, I.I.; KOMPANIYETS, N.V.;
OTRISHCHEVKO, H.I.; KHARITONOV, V.V.; TOROPOV, F.S.

Making ingot molds and other castings of cast iron with spheroidal
graphite at the Chelyabinsk Metallurgical Plant. Stal' 23 no.4:381-383
Ap '63. (MIRA 16:4)

(Iron founding)

(Ingot molds)

18(5), 28(1)

SOV/128-59-10-10/24

AUTHORS:

Pozdnyshov, V.M., Candidate of Technical Sciences, Sal'nikov, V.V., Krivopalov, Yu.I., Tomashevskiy, Yu.I., and Shabonov, N.S., Engineers

TITLE:

Conveyer Mould Machine for the Casting of Mill Balls

PERIODICAL:

Liteynoye proizvodstvo, 1959, Nr 10, pp 30-31 (USSR)

ABSTRACT:

The authors present a technology for mass production of mill balls, which has been developed by the Nauchno-issledovatel'skiy institut tekhnologii mashinostroyeniya Chelyabinskogo sovnarkhoza (Scientific Research Institute for Technology of Machine Building of the Chelyabinsk Sovnarkhoz), together with the Katav-Ivanovyy liteyno-mekhanicheskiy zavod (Katav-Ivanovo Foundry Mechanical Factory). This technology is based on a conveyer mould machine with vertical plane and with continuous Priming (Fig.1). The basic part of the machine is a vertical closed chain (#1), on which the moulds are fastened and transported by special rolls (#2). The moulds have a traveling part (#3) and a fixed part (#3a). The chain moves in two gears on the frame (#4). The metal is poured with the pouring plat-

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SOV/128-59-10-10/24

Conveyer Mould Machine for the Casting of Mill Balls

form (#5) onto that section of the chain which has the maximum tension (#6). At the present time, complete mechanization of mill ball production is being worked on. There are 2 photographs.

Card 2/2

L 12968-65 EW(j)/EW(l)/EW(m)/EPF(c)/EPF(t)/EPF(k)/EP(b) Pf-l/
Pr-l/Ps-l/Pad WH/WW/JD/HW

ACCESSION NR: AR4018341

S/0137/64/000/001/I101/I101

SOURCE: KZh. Metallurgiya, Abs. 11660

AUTHOR: Mikryukov, V. Ye.; Pozdnysk, N. Z.

TITLE: Investigation of physicomechanical properties of iron-copper-nickel
graphite sintered alloy 27 27 27

CITED SOURCE: Tr. Kuybyshevsk. aviat. in-t, vy* p, 16, 1963, 157-164

TOPIC TAGS: sintered alloy, sintered alloy property, sintered alloy strength,
iron copper nickel alloy, sintering behavior

TRANSLATION: The thermal, electrical, and mechanical properties of alloy containing (in %) C 1.5, Cu 10, Ni 15, and Fe 73.5 were studied. The research was conducted on samples with porosities up to 10 percent (I) and up to 30 percent (II), pressed under pressure of 10 and 5 tons/cm² respectively with an admixture of 1% zinc stearate and sintered at 1140-1150°C for 1.5 hours in an atmosphere of H₂ and NH₃. It was determined that the addition of 15% Ni to an alloy containing 1.1% C

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L 12968-65
ACCESSION NR: AR4018341

and 10% Cu increases the hardness by 25% but decreases the mechanical strength, plasticity, and α_k of the alloy. Sintering in NH_3 lowers the mechanical properties and α_k by 10-15% and increases brittleness as compared with sintering in H_2 . Samples of I sintered in H_2 show: tensile strength 22.4 kg/mm^2 , elongation 1.2%, $\alpha_k 0.33 \text{ kgm/cm}^2$, compressive strength 131 kg/mm^2 , for II the corresponding figures are 14.45 kg/mm^2 , 0.01%, 0.32 kgm/cm^2 , and 57 kg/mm^2 . At 400 degrees, the tensile strength and α_k decrease insignificantly. The heat conductivity increases linearly with increase of temperature, reaching $0.0388 \text{ cal/cm-sec-}^\circ\text{C}$ at 613°C .

SUB CODE: MM ENCL: 00

Card 2/2

VASYUCHENKO, Sof'ya Ivanovna; POZDYUNINA, Ye.L., retsenzent;
AVRAMENKO, Ye.I., red.; GOROKHOVA, S.S., tekhn. red.

[Chemistry for technical schools] Khimiia dlja tekhnikumov.
Izd.4., perer. i dop. Moskva, Gos. izd-vo "Vysshiaia shkola,"
1961. 395 p. (MIRA 15:2)

(Chemistry)

IVANOV, V.I.; POZE, B.B.; RUCHKIN, B.F.; TARUSHKA, I.Yu. (Prokop'yevsk)

Plastic surgery on traumatic defects of the skull using
styrene-acryl. Vop. neirokhir. 26 no.6:53 N-D'62 (MIRA 17:3)

KABAK, Ya.M.; POZE, G.

The islet apparatus of the pancreas in rats in "hypothalamic" adiposity. Biul. eksp. biol. i med. 54 no.8:101-104. Ak '64.
(MIRA 17:11)

1. Iz laboratorii endokrinologii (zav. - prof. Ya.M. Kabak)
biologo-pochvennogo fakul'teta Moskovskogo gosudarstvennogo
universiteta. Predstavlena deystvitel'nym chlenom AMN SSSR
V.G. Baranovym.

G. J. L.

POZE, G. Cand Biol Sci -- "State of certain endocrine glands in rats in 'hypothalamic adiposis.'" Mos, 1960. (Mos State Univ im N. V. Lomonosov. Biol Soil Faculty).
(KL, 1-61, 138)

-138-

941600

S/056/62/042/005/010/050
B104/B102AUTHORS: Nikanorov, V. I., Peter, G., Pisarev, A. F., Poze, Kh.TITLE: Measurement of the spin correlation coefficient for
pp-scattering at 660 MevPERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 42,
no. 5, 1962, 1209-1211

TEXT: The spin correlation coefficient C_{kp} was measured for elastic proton-proton scattering at an angle of 90° , the 660-Mev protons being scattered on a polyethylene target (Fig. 1). The scattered protons and the recoil protons were recorded by coincidences in the telescopes T_1 and T_2 . The solid angle of the two telescopes was $0.7 \cdot 10^{-3}$ steradion. The amplitude of elastic pp-scattering can be represented in the form

$$M = \alpha + \beta (\sigma_1 n) (\sigma_2 n) + \gamma (\sigma_1 + \sigma_2) n + \delta (\sigma_1 K) (\sigma_2 K) + e (\sigma_1 P) (\sigma_2 P) \quad (1).$$

C_{kp} and the scattering amplitude coefficients are related by

Card 1/3

Measurement of the spin correlation ...

S/056/62/042/005/010/050
B104/B102

$I_0(\vec{J})C_{kp}(\vec{\gamma}) = -\text{Im}(de^*)$, where $d = \delta - \bar{c}$, $e = 2\gamma$, and $I_0(\vec{J})$ is the differential cross section of elastic pp-scattering (cf. Oehme, Phys. Rev. 98, 147, 1955). The proton spin states after scattering were determined with the aid of two identical carbon targets. The telescope T_3 and T_4 were in anticoincidence with the telescopes T_1 and T_2 . The direction of motion of the protons before and after scattering from carbon targets was determined with gas discharge chambers. Results: The correlation asymmetry factor is 0.054 ± 0.041 , $C_{kp}(90^\circ) = 0.22 \pm 0.18$. This work is part of an experimental program for determining the scattering amplitudes and for conducting a phase shift analysis. There are 2 figures.

ASSOCIATION: Ob'yedinennyj institut yadernykh issledovaniy (Joint Institute of Nuclear Research)

SUBMITTED: December 29, 1961

Card 2/3

GOVOROV, A.M.; NIKANOROV, V.I.; PETER, G.; PISAREV, A.F.; POZE, Kh.

Gas-discharge chamber. Prib. i tekhn.eksp. 6 no.6:49-51 N-D '61.
(MIRA 14:11)

1. Ob'yedinenyy institut yadernykh issledovaniy.
(Cloud chamber)

NIKANOROV, V.I.; PETER, G.; PISAREV, A.F.; POZE, Kh.

[Measurement of the spin correlation coefficient C_{kp} for proton-proton scattering at an energy of 660 Mev] Izmerenie koeffitsienta spinovoi korreliatsii C_{kp} dlja (p-p) - ras-seianija pri energii 660 Mev. Dubna, Ob"edinennyi in-t iader-nykh issl., 1961. 8 p. (MIRA 15:1)

(Nuclear spin) (Protons—Scattering)

POZER, E.

21.6000

3344

S/140/51/000/006/006/041

E032/E114

AUTHORS: Govorov, A.M., Nikonorov, V.I., Peter G.,
Pisarenko, A.F., and Pozer, Kh.

TITLE: A gas discharge chamber

PERIODICAL: Pribery i tekhnika eksperimenta, no.6, 1961, 49-51

TEXT: A brief version of this article was communicated to the International Conference on High-energy Nuclear Instruments at Berkeley in September 1960.

The present chamber is similar to those described by S. Fukui and S. Miyamoto (Ref.1: Nuovo cimento v.11 1959, 113) and S. Fukui, S. Miyamoto (Ref.2: Physical Institute Nagoya University, Japan Preprint, 1959). It differs from ordinary spark chambers in that the electrodes are separated from the working volume by a dielectric. The authors have investigated chambers with plane electrodes ($25 \times 10 \text{ cm}^2$) at a distance of 7 cm. The chambers were filled with neon to a pressure of 760 mm Hg with an added argon impurity (0.3-0.45%). In addition to the properties investigated in Refs. 1 and 2, the present authors have studied

Card 1/2 2

X

A gas discharge chamber

5/19/64/000/000/000/000
E632/011

the dependence of the amplitude of the high voltage pulse applied to the chamber on its length (for visible tracks) and magnitude of the clearing field. It was found that when the argon impurity is 0.4-0.45% and the electric field is 5-6 KV/m, the maximum angle at which the discharge will always occur along the track of the particles is 30°. At larger angles both normal and distorted tracks are observed. Examination of photographs of tracks at 30° showed that there was a systematic displacement towards the positive electrode by about 1 mm relative to the direction of motion of the particle. Acknowledgments are expressed to A.A. Tyapkin and V.I. Salatskiv for discussions. There are 4 figures and 2 non-Soviet block references. The English language reference (Ref 2) is as quoted in text above.

ASSOCIATION Ob'yedinenyyi institut yadernykh issledovaniy
(Joint Institute for Nuclear Research)

SUBMITTED: April 10, 1961

Card 2/2

X

NIKANOROV, V.I.; PETER, G.; PISAREV, A.F.; POZE, Kh.

Measurement of the spin correlation coefficient for pp-scattering
at an energy of 660 Mev. Zhur. eksp. i teor. fiz. 42 no.5:
1209-1211 My '62. (MIRA 15:9)

1. Ob'yedinennyj institut yadernykh issledovaniy.
(Nuclear spin) (Protons--Scattering)

POZE, Kh.R.

SUBJECT USSR / PHYSICS CARD 1 / 2 PA - 1231
AUTHOR POZE, CH.P., GLAZKOV, N.P.
TITLE The Inelastic Scattering of Photoneutrons with an Energy of
0,3; 0,77; and 1,0 MeV.
PERIODICAL Zurn. eksp. i teor. fis, 30, 1017-1024 (1956)
Publ. 6 / 1956 reviewed 9 / 1956

The cross section of this inelastic scattering was measured on the nuclei of the following elements: U, Bi, Hg, W, Sb, Sn, Cd, Cu, Ni, Fe, Al, Na. Method and technique of measuring: The inelastic effect was measured by measuring the primary spectrum of the neutrons in the investigated substances. The samples were spherical and had a central cavity for the reception of neutron sources (Na-Be, La-Be and Na-D₂O). The neutrons were recorded by measuring the recoil nuclei with a spherical ionization chamber. Tests consisted in measuring the primary spectrum of the source without scatterer and of the secondary spectrum of the source enclosed in the center of the scatterer. Next, structure and manner of acting of the spherical ionization chamber as well as the characteristics of the photoneutron sources are discussed. It is particularly easy to construct a spherical chamber of glass which is coated with silver inside and covered with electrolyte copper on the outside. Measuring results and the computation of σ_H: If the number of neutrons diminishes exponentially with the primary energy E₀ as a result of inelastic acts of scattering, it applies

Zurn.eksp.i teor.fis, 30, 1017-1024 (1956) CARD 2 / 2 PA - 1231
for the scattering cross section in hydrogen that $\sigma_H = (1/n_1) \ln(N_1/N_2)$.
Here N_1 and N_2 denote the numbers of momenta in the primary and secondary
spectrum respectively at the E_0 , l - the scattering length of the neutrons
(computed in diffusion approximation). The errors due to this diffusion
approximation and to the assumption of an exponential reduction of the
primary spectrum are slight. Wherever possible, either the energies of the
individual excited levels or the average energy of the inelastically scattered
neutrons were determined from the recoil spectra, which, however, was possible
only approximatively (with an accuracy of from 5 to 7%). It is particularly
difficult to determine the left edge of the spectrum of inelastically
scattered neutrons. As an example the measuring results for Pb and Bi are
mentioned. At 0,3; 0,77; and 0,9 MeV the recoil spectra of Pb and Bi are com-
pletely equal within the limits of measuring errors. Therefore, the absorption
and the inelastic scattering of neutrons with less than 0,9 MeV probably
amounts to not more than 0,1 barn. However, within the range of more than
0,9 MeV (here at 1 MeV) an inelastic scattering becomes noticeable and the
spectrum of Pb decreases within the entire range from $E_0 = 1$ MeV to $E = 0,45$ MeV.
From the curves there follows immediately N_1/N_2 , and $\sigma_H = 0,2 \pm 0,1$ barn is
found. In conclusion the measuring results for tungsten are discussed;
 $N_1/N_2 = 1,25$ and $\sigma_H = 0,4 \pm 0,2$ barn was found.

INSTITUTION:

Poze, Kh. R.

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2

INELASTIC SCATTERING OF 0.3, 0.77, AND 1.6 MEV
PHOTONEUTRONS BY K. Poze and N. P. Gerasov. Soviet
Phys. JETP 14, 1177-1182 (1962)

Cross sections were measured for inelastic scattering of neutrons of three energies 0.3, 0.77 and 1.6 Mev by the nuclei of 12 elements: oxygen, beryllium, boron, carbon, tungsten, aluminum, tin, cadmium, copper, nickel, iron, silicon, and sulfur. For heavy nonmagnetic nuclei (tungsten, mercury and tungsten), the cross section for inelastic scattering of neutrons with energies 0.3 and 1 Mev was found to be 1 to 2 barns. For light and middle nuclei the cross section for these same neutrons was found to be small, of the order of 10 to 100 barns. In addition, for tungsten neutron scattering was observed at the energy of 1.6 Mev, which corresponds to the excitation of the 1.42 Mev level in the nucleus.

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my

KISELEV, V.S.; OGANESYAN, K.O.; POZE, R.A.; FLYAGIN, V.B.

New measurements of the spectrum of neutron formed during
bombardment of Be with 680 Mev. protons. Zhur. ekspr. i teor.
fiz. 35 no.3:812-814 S '58. (MIRA 12:3)

1.Ob'yedinennyj institut yadernykh i issledovaniy.
(Neutrons--Spectra) (Beryllium--Decay) (Protons)

POZE, L.A.

Investigating the Zeiss No.18813 transit instrument. Izv.GAC
23 no.1:107-110 '62. (MIRA 16:12)

21(7)

AUTHORS:

Kiselev, V. S., Oganesyan, K. O.,
Poze, R. A., Flyagin, V. B.

SOV/56-35-3-52/61

TITLE:

New Measurements of the Spectrum of Neutrons Which are
Formed During the Bombardment of Be by 680 MeV Protons
(Novyye izmereniya spektra neytronov, obrazuyushchikhsya
pri bombardirovke Be protonami 680 MeV)

PERIODICAL:

Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1958,
Vol 35, Nr 3, pp 812 - 814 (USSR)

ABSTRACT:

In the course of the work forming the subject of this paper
it was possible, because a magnetic field was used for the
analysis of the recoil protons with respect to their momenta,
to do without an admixture of positive or negative mesons
within the entire energy range investigated. Measurements
were carried out by means of this new method for the angle
of emission of 0° of the neutrons. Main attention was
directed to the high energy part of the spectrum, knowledge
of which is necessary for the purpose of carrying out most
of the work in connection with the bundles. The scheme of
the experiment is illustrated by means of a schematic
drawing. A neutron bunch impinged upon a polyethylene- and

Card 1/3

New Measurements of the Spectrum of Neutrons Which
are Formed During the Bombardment of Be by 680 MeV
Protons

SOV/56-35-3-52/61

a graphite target. The effect on hydrogen was determined as the difference of these effects on these targets. When calculating the spectrum the energy losses of the protons in the targets and in the air, as well as the astigmatism of the magnetic system were taken into account. The results obtained by measuring the neutron spectrum after taking all necessary corrections into account are shown in form of a diagram. The same diagram also shows previously obtained data. This energy spectrum has 2 maxima at about 275 and 620 MeV. The spectral range of from 100 to 500 MeV contains a small admixture of protons, which are emitted in the reaction $n + p \rightarrow \pi^0 + n + p$ as well as in the reaction $n + p \rightarrow \pi^- + p + p$. The reasons for the occurrence of 2 maxima in the neutron spectrum were discussed by V. S. Kiselev and V. B. Flyagin (Ref 1). The authors thank V. P. Zrelov for his valuable advice during the discussion of the results obtained. There are 2 figures and 9 references, 4 of which are Soviet.

Card 2/3

New Measurements of the Spectrum of Neutrons Which
are Formed During the Bombardment of Be by 680 MeV
Protons

sov/56-35-3-52/61

ASSOCIATION: Ob"yedinennyj institut yadernykh issledovaniy (United
Institute for Nuclear Research)

SUBMITTED: June 21, 1958

Card 3/3

ACC NR: AT6023221

SOURCE CODE: UR/2910/65/003/0369/0376

AUTHOR: Repshas, K. -- Repsas, K.; Vashkevichyus, R. -- Vaskevicius, R.; Denis, V. -- Dienys, V.; Pozhela, Yu. -- Pozela, J.

ORG: Institute of Physics and Mathematics, Academy of Sciences Lithuania SSR (Institut fiziki i matematiki Akademii nauk Litovskoy SSR)

TITLE: The Hall effect in p-type germanium in strong electric fields

SOURCE: AN LitSSR. Litovskiy fizicheskiy sbornik, v. 5, no. 3. 1965, 369-376

TOPIC TAGS: Hall effect, electron hole, hole mobility, germanium semiconductor, electric field

ABSTRACT: A method is proposed for investigating the Hall effect and other transverse effects in strong electric fields. A superhigh-frequency field was used as the force field which eliminated a number of experimental difficulties. The method was applied to a measurement of the Hall effect in p-type germanium. It was shown that the Hall mobility decreases with an increase of the electrical field more quickly than the drift mobility. The decrease in the Hall constant that was experimentally observed is explained by the distribution of the hot holes differing from a Maxwell distribution and the nonparabolic shape of the zone of light holes.

Card 1/2

"APPROVED FOR RELEASE: 03/14/2001

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L 40356-56

ACC NR: AT6023221

Orig. art. has: 4 figures and 6 formulas.

SUB CODE: 20/ SUBM DATE: 28Dec64/ ORIG REF: 004/ OTH REF: A2

Card 2/2

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001342820003-8"

ПОЗЕЛСКИЙ, С. В.

STRATILOV, P.V.; POZEL'SKII, S.V., red.; PONOMAREVA, A.A., tekhn.red.

[Assignments for correspondence students of secondary schools;
algebra, geometry and trigonometry, 10th grade] Zadaniia dlia
uchashchikhsia zaochnoi srednei shkoly; algebra, geometriia i
trigonometriia, X klass. Izd. 5-oe. Moskva, Gos.uchebno-pedagog.
izd-vo M-va prosv. RSFSR, 1957. 127 p. (MIRA 11:2)
(Mathematics--Problems, exercises, etc.)

POZEMOV, A.

Machine for applying bituminous coatings. Na stroi. Mosk. 2
no.6:26 Je '59. (MIRA 12:8)

1. Glavnyy mekhanik stroitel'nogo uchastka No.99 tresta Mosstroy
No.8.
(Bituminous materials)

9,1300

2633

S/142/61/004/003/016/016
E192/E382

AUTHORS: Kasatkin, L.V. and Pozen, N.L.

TITLE: An automatic line for measurement of the reflection coefficient at the centimetre-wave band

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy,
Radiotekhnika, v. 4, no. 3, 1961, pp. 354 - 356

TEXT: The instrument described permits measurement of the mismatch characteristics over a frequency interval of 20% with an error of \pm 10%. The block diagram of the instrument is illustrated in Fig. 1. The probe of a crystal detector 2 and a phase-shifter consisting of a polystyrol plate 3, fixed by means of small steel shafts on jewelled bearings 8 is situated in a rectangular waveguide 1. The bearings 8 are inserted in dielectric holders 9 (made of "penoplast"). The polystyrol plate is rotated by directing a stream of air into the waveguide from a blower 7 through the pipe 5. The signal from the output of the detector 2 can be analysed by applying it to the balanced mixer 4 and then feeding it to the terminals of the vertical plates of the oscilloscope 6. *✓*

Card 1/4 3

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E192/E382

An automatic line

system of Fig. 1, the picture observed on the oscillograph is in the form of four ellipses inscribed in each other (see Fig. 3). The major axis α of the external ellipse determines the quantity $U_{\max \max}$; similarly, the major axis β of the internal ellipse determines the quantity $U_{\min \min}$. The standing-wave ratio is then given by $S = \sqrt{\alpha/\beta}$. There are 4 figures and 2 Soviet-bloc references.

ASSOCIATION: Kafedra radioperedayushchikh ustroystv
Kiievskogo ordena Lenina politekhnicheskogo
instituta (Department of Radio-transmitting Devices
of the Kiev "Order of Lenin" Polytechnical
Institute)

SUBMITTED: June 9, 1960

Card 5143

X

POZEN, S.I. (Gor'kiy)

Side effects and complications in penicillin therapy [with summary in English]. Vest.derm. i.v.en. 31 no.6:28-32 N-D '57. (MIRA 11:3)
(PENICILLIN, inj. eff.
skin dise.)
(SKIN DISEASES, etiol. and pathogen.
penicillin)

POZEN, S.I., podpolkovnik med. sluzhby; BARDOV, A.N., podpolkovnik med. sluzhby;
~~BENIET, Ya.A, kapitan med. sluzhby; GRYAZNOV, A.A., leytenant med.~~
sluzhby

Prevention of minor injuries. Voen. med. zhur. no.3:79 Mr '58.
(MIRA 12:7)
(MILITARY MEDICINE)

Pozen S.I.

EXCERPTA MEDICA Sec 13 Vol 13/2 Dermatology Feb 59

426. UNTOWARD REACTIONS AND COMPLICATIONS IN PENICILLIN THERAPY (Russian text) - Pozen S.I. - VESTN. VENER. DERM. 1957, 30/6 (28-32)

The author studied 14 patients with various untoward reactions due to penicillin therapy. He cites the medical histories of patients with urticaria, toxicodermatitis bullosa (lethal outcome), grave dysbacillaemia, local allergic dermatitis and toxic crisis. (XIII, 50)

POZENBERG, S. Ye.

20739. Yatskikh, V.O. i Pozenberg, S. Ye. Puti novysheniya proizvoditelnosti vrubcovykh mashin. Raboty DONUGI (Donetskiy nauk - issled. ugol'nyy in-T), st. 5, 1949, s. 3-20

SO: LETOPIS ZHURNAL STATEY - Vol. 28, Moskva, 1949

POZENBLATT, M.A.

ROZENBLATT, M.A., kandidat tekhnicheskikh nauk; SENCHENKOV, A.P.,
inzhener.

Magnetic amplifiers. Elektrichestvo no.8:67-72 Ag '54. (MLRA 7:8)

1. Nauchno-issledovatel'skiy institut magnitnogo kurса SSSR (for
Rozenblatt). 2. Nauchno-issledovatel'skiy institut magnitnogo radio-
pelenga SSSR (for Senchenkov).
(Magnetic amplifiers)

POZENEL, R.

"The condenser in high current techniques." p. 35. (ELEM. CHIM. ING. "MELNIK", Vol. 42,
no. 1/2, 1953, Ljubljana.)

SC: Monthly List of East European Accessions, Vol. 2, #3, Library of Congress
August, 1953, Incl.

B. Ar.

A771-19

Effect of di-isopropyl fluorophosphate on glycolysis in muscle tissue. A. V. Zakharova and Y. I. Prengart (Biochimia, 1949, 14, 67-80).—Di-isopropyl fluorophosphate inhibits glycolysis in isolated muscle tissue of rabbit. It differs from NaF in not inhibiting formation of lactic acid from hexose phosphate, and therefore the inhibition of glycolysis is not due to formation of F⁻.
D. H. SMITH.

POZEMT WIT, A. C.

"The Khatymnakh Tin Deposit in Northeast Yak Utia", Tsvet. Met. 17, No 10-11
October-November 1939.

Report U-1506, 4 Oct. 1951.

A III - 28

BA

Proteolytic enzymes—metalloproteins. S. E. Breiter and N. A. Pogentzveig (*Biochimie*, 1951, **10**, 84–94).—Trypsin and chymotrypsin both contain metalloproteins; in the case of trypsin the metal is Cr and in the case of chymotrypsin the metal is Mg. The Mg is firmly bound and not removed by chymotrypsin, whilst the Cr is labile and easily removed. The Cr in chymotrypsin can be replaced by Mg without loss of activity of the enzyme. It is suggested that some digestive disorders may be due to deficiency of Cr or Mg or to disordered metabolism of these.
D. H. SMITH.

BARNAVIC, B.; JERIC, I., ; POZER, H.

Planning the electric-power generating system in Yugoslavia. p. 244
(Elektroprivreda, Vol. 10, No. 5/6, May/June, 1957, Beograd, Yugoslavia)

SO: Monthly List of East European Accessions (EMAL, Lc. Vol. 6, No. 8, Aug 1957. Uncl.

POZERAITIS, Z.; PTASEKAS, R.

Two cases of death from Candida mycoses. Sveik. apsaug. 8 no.1:
40-41 Ja'63.

1. Resp. Vilniaus klinine ligonine.

*

VEDRINTSEV, Kh.V., uchitel'; POZERN, I.V. (Kostroma); NIKITIN, I., uchitel';
KHUDIS, R.V., uchitel'nitsa (selo Nisporeny Moldavskoy SSR)

Letters to the editors. Geog. v shkole 24 no.4:71-73 Jl-Ag '61.
(MIRA 14:8)

1. Pushkarskaya shkola Lipetskoy oblasti (for Vedrintsev). 2. 5-ya
shkola g. Solnechnogorska (for Nikitin).
(Geography--Study and teaching)

Pozerin, T.P.

Yur'yev, V.I. and Pozerin, T.P. "On the potentiometric titration of bisulfite with chloramine "P", Trudy Lesotekhn. akad. im. Airova, No. 63, 1948, p. 121-26.

SO: Up3042, 11 March 53, (Letopis 'nykh Statej, No9, 1949)

POZERAITIS, Z.

On some errors in the diagnosis and expertise in temporary disability
in vilnius polyclinics. Sveik. apsaug. no.7:32-36 '62.
1. Vilniaus m. III ligonine. Vyr. gydytojas -- L. Didziulis.
(DISABILITY EVALUATION)

45343
S/181/63/005/002/019/051
B104/B102

211,28/00
24,78/00
AUTHORS:

Velyukhanova, G. A., Pasynkov, R. Ye., Pozern, V. I., and
Popov, V. P.

TITLE: Study of the mechanical nonlinearity of a series of poly-
crystalline ferroelectrics

PERIODICAL: Fizika tverdogo tela, v. 5, no. 2, 1963, 506-512

TEXT: The mechanical properties of the following five piezoceramic
materials are studied: BaTiO₃ (I); 95%BaTiO₃ + 5%CaTiO₃ (II);

95%BaTiO₃ + 5%CaTiO₃ + 0.75%CoCO₃ (III); 40% BaNb₂O₆+60%PbNb₂O₆ (IV);

Pb_{0.95}Sr_{0.05}(Zr_{0.63}Ti_{0.47})O₃ + 1%Ta₂O₅ (V). Young's modulus E was
determined from the resonance frequencies of the longitudinal oscillations

of rods. The mechanical Q factor, Q_M, was determined from the experimental
frequency characteristics of the total current. The absolute magnitudes
of the mechanical stresses with small oscillation amplitude are determined
from the relations between mechanical stresses σ, the oscillation
velocities and the active current passing through the transducer.

Card 1/2

S/181/63/005/002/019/051
B104/B102

Study of the mechanical nonlinearity ...
Results: $Q_M(\sigma)$ and $E(\sigma)$ remain virtually constant in the frequency range from 10 to 40 kc/sec. The qualitative agreement between the changes of the real and the imaginary part of E indicates a close connection between elastic deformations and the attendant losses of mechanical energy. The relations between the mechanical properties ($E(\sigma)$, $\tan \delta_M = 1/Q_M$) and the electrical properties ($\epsilon(E)$, $\tan \delta(E)$) which had been reported earlier (R. Gerson, J. Appl. Phys., 31, 1, 188, 1960; J. Acoust. Soc. Am., 32, no. 10, 1297, 1960) are confirmed. There are 8 figures and 2 tables.

SUBMITTED: August 27, 1962

Card 2/2

VELYUKHANOVA, G.A.; PASYNKOV, R.Ye.; POZARN, V.I.; POPOV, V.P.

Study of the mechanical nonlinearity of certain polycrystalline
ferroelectrics. Fiz. tver. tela 5 no.2:506-512 F '63.
(MIRA 16:5)
(Ferroelectric substances--Testing)

ZAYTSEVA, V.I.; PASYNKOv, R.Ye.; POZERN, V.I.; EL'GARD, A.M.

Dielectric properties of a polarized ceramic in strong variable
electric fields. Izv. AN SSSR Ser. fiz. 24 no.11:1357-1361 N '60.
(MIRA 13:12)

(Ceramics—Electric properties)
(Electric fields)

VELYUKHANOVA, G.A.; PASYNKOV, R.Ye.; POZERN, V.I.; EL'GARD, A.M.

Piezoelectric properties of polarized ceramics in strong variable
electric fields. Izv. AN SSSR Ser. Fiz. 24 no.11:1362-1365 N '60.
(MIRA 13:12)

(Ceramics—Electric properties)
(Piezoelectricity) (Electric fields)

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S/048/60/024/011/014/036
B006/B0569,2180 (3203,1162)
24,7800 (1035,1144)AUTHORS: Zaytseva, V. I., Pasynkov, R. Ye., Pozern, V. I.,
El'gard, A. M.TITLE: The Dielectric Properties of Polarized Ceramics in
Strong, Variable Electric FieldsPERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1960,
Vol. 24, No. 11, pp. 1357 - 1361

TEXT: The present paper is a reproduction of a lecture delivered on the
3rd Conference on Ferroelectricity, which took place in Moscow from
January 25 to 30, 1960. The authors measured the dependence of the dielectric
constant and of the tangent of the loss-angle of polarized ceramics
upon the applied electric field strength, and give a report on the re-
sults obtained. In the introduction, the theory of the problem is brief-
ly dealt with, and L. P. Kholodenko is mentioned. The measurements them-
selves were made in parallel- as well as in series connection, for which
purpose a pulse operation resonance method was used. With a pulse dura-
tion of 10-20 msec and an interval between the pulses of 1-5 sec it was

Card 1/4

The Dielectric Properties of Polarized
Ceramics in Strong, Variable Electric Fields

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S/048/60/024/011/014/036
B006/B056

found that the samples were practically not heated. The measurements of voltage and current as well as the control of the shape (of voltage and current) in pulse operation was carried out by means of an oscilloscope of the type 3HO-1 (ENO-1) with a frequency of 10 kc/sec. The temperature of the sample was controlled by means of a thermocouple. The samples were all produced in the same manner and had a thickness of 1.55 mm. The sample heated up to Curie point was polarized in a constant electric field of 0.8 kv/mm (1 hour), after which it was cooled down to room temperature in stages. ϵ_z^1 and tan δ as a function of E were measured on samples of three different compositions: 1) BaTiO_3 (broken curve: non-polarized sample); 2) 94% BaTiO_3 - 6% CaTiO_3 , and 3) 95% BaTiO_3 - 5% CaTiO_3 - 0.75% CoCO_3 . The results are shown in the attached Figure. The course taken by the curve is discussed in detail. The experimental results agree in E-ranges, where no depolarization occurs, qualitatively with the theoretical results. There are 3 figures and 6 references: 2 Soviet, 3 US, and 1 Canadian.

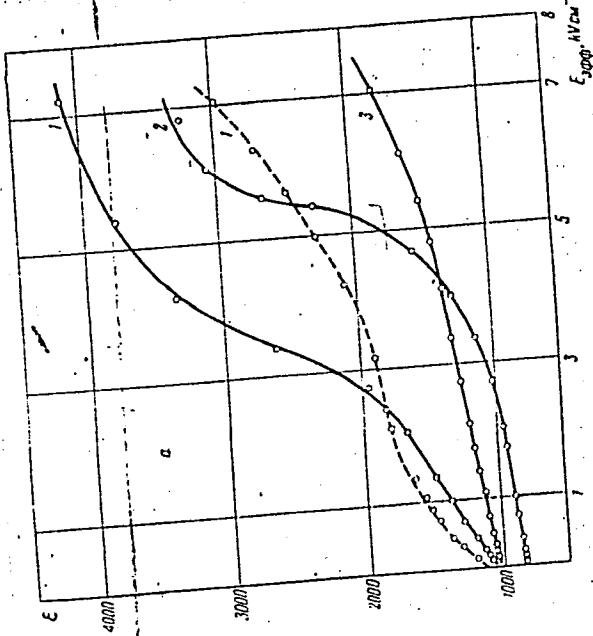
Card 2/4

"APPROVED FOR RELEASE: 03/14/2001

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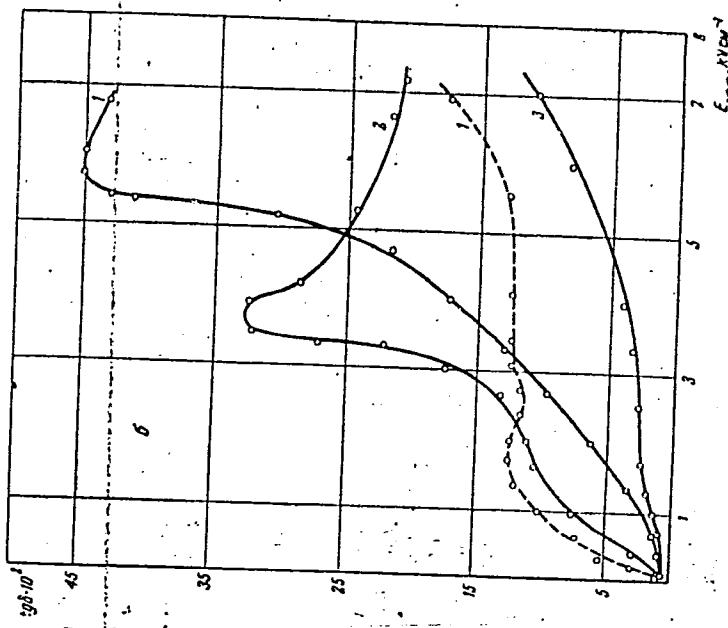
S/048/60/024/011/014/036
B006/B056



Card 3/4

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001342820003-8"



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S/048/60/024/011/014/036
B006/B056

8 5879

9.2181 (3203,2303)
24.7800 (1144,1162)

S/048/60/024/011/015/036
B006/B056

AUTHORS: Velyukhanova, G. A., Pasynkov, R. Ye., Pozern, V. I.,
El'gard, A. M.

TITLE: The Piezoelectric Properties of Polarized Ceramics in
Strong, Variable Electric Fields

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1960,
Vol. 24, No. 11, pp. 1362 - 1365

TEXT: The present paper is a reproduction of a lecture delivered on the
3rd Conference on Ferroelectricity, which took place in Moscow from
January 25 to 30, 1960. Under the same assumptions as made in Ref.1, the
authors calculated the dependence of the piezomoduli d_{33} and d_{31} upon
electric field strength; for the case of tetragonal symmetry, they obtain
 $d_{33}^{(1)}(E_z) = \frac{2\nu_{33}}{4\pi} P_{oz} \varepsilon_{zz}^{(1)}(E_z)$; $d_{31}^{(1)}(E_z) = \frac{2\nu_{31}}{4\pi} P_{oz} \cdot \varepsilon_{zz}^{(1)}(E_z)$; the super-
script (1) denotes that the first harmonic is investigated; the ν_{ik} are

Card 1/3

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The Piezoelectric Properties of Polarized
Ceramics in Strong, Variable Electric Fields S/048/60/024/011/015/036
 B006/B056

the electrostriction coefficients, P_{oz} the components of polarization.

It further holds that $\varepsilon_{zz}^{(1)}/\varepsilon_{z zo} \approx d_{33}^{(1)}/d_{33o} = d_{31}^{(1)}/d_{31o} = f(e_z)$. The third subscript o means that the moduli have been measured in the case of very weak fields. The field strength dependence of the piezo-moduli was measured on cylindrical samples which were radially and tangentially polarized, viz. for the following substances: 1) BaTiO_3 , 2) 95% BaTiO_3 + 5% CaTiO_3 , and 3) BaTiO_3 + 0.75% CoCO_3 . To the sample (which was in the air), pulses with 8 kc/sec were applied with a pulse duration of 5 msec; the mechanical resonance frequency was about 15 kc/sec. The temperature of the samples, which practically did not change either at ~ 8 kv/cm, was controlled by means of thermocouples, and could be varied between -20 and +40°C. The results obtained, which are shown in diagrams, may be summarized as follows: 1) the ratio $d_{ik}^{(1)}/d_{iko}$ in all samples increases with the field strength (up to ~ 4.5 kv/cm), 2) in fields of more than 4.5 kv/cm, $d_{ik}^{(1)}/d_{iko}$ decreases rapidly for BaTiO_3 , and less rapidly for

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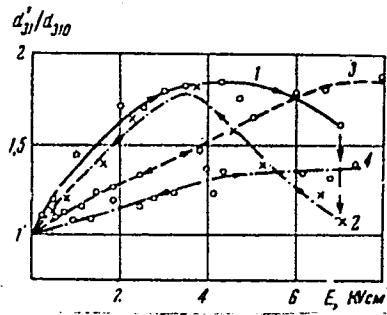
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The Piezoelectric Properties of Polarized
Ceramics in Strong, Variable Electric Fields

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the second composition, and increases further for the third composition
of the samples. 3) The behavior of $d_{33}^{(1)}$ and $d_{31}^{(1)}$ agrees qualitatively.

4) The curves (in both directions) d_{ik}'/d_{iko} = $f(E)$ recorded at 8 kv/cm
in the course of 30 min, take a completely equal course for compositions
2 and 3 (Curves 3 and 4), and for 1 the curves recorded in the two direc-
tions (Curves 1 and 2) deviate from each other (cf. the attached figure).
There is qualitative agreement with the theory. There are 4 figures and
6 references: 4 Soviet, 1 US, and 1 Canadian.



Card 3/3

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001342820003-8

~~CONFIDENTIAL - RUSSIAN ACCESSION~~

Fluorescent lighting.

Instant lighting. Fluorescent lamp. Electrodeless no. 6, 100w.

~~Monthly List of Russian Accessions~~, Library of Congress, November 1972. (AC) 177182.

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001342820003-8"

1. DOLGOPOLOV, V. I., Eng.: PETROVA, N. G.: POZHALKINA, L. N.
2. USSR (600)
4. Electric Lamps, Incandescent
7. Luminescent Lamps with cold cathodes.
Elektrichestvo No. 10, 1952.
9. Monthly List of Russian Accessions, Library of Congress, January 1953. Unclassified.

DOLGOPOLOV, V.I., inzhener; POZHALKINA, L.N., inzhener

New white diffuse reflecting enamels. Svetotekhnika 1 no.3:
7-11 Je'55.
(MLRA 8:10)

1. Vsesoyuznyy svetotekhnicheskiy institut
(Reflection (Optics)) (Enamel and enameling)

POZHALOSTIN, A.A., aspirant

Calculating natural vibration frequencies of a shallow
spherical shell. Izv. vys. ucheb. zav.; mashinostr. no. 10:
30-34 '65
(MIR 19:1)

1. Submitted May 9, 1964.

ACCESSION NR: AP4009640

S/0147/63/000/004/0025/0032

AUTHOR: Pozhalostin, A. A.

TITLE: Free oscillation of a liquid in a rigid circular cylindrical vessel with an elastic flat bottom

SOURCE: IVUZ. Aviatsionnaya tekhnika, no. 4, 1963, 25-32

TOPIC TAGS: rigid circular cylinder, liquid containing cylinder, liquid surface oscillation, liquid plus diaphragm system, system oscillation frequency, partial oscillation frequency, free surface oscillation, mechanical analogue technique, fluid mechanics

ABSTRACT: The report presents solutions relating to determination of oscillation frequencies for the system "liquid plus diaphragm", provides an evaluation of the influence of free surface oscillation on frequencies of the system and proves that the oscillatory system can be illustrated in terms of a mechanical analogue (see Fig. 2 in the Enclosure). The vessel under consideration (see Fig. 1 in the Enclosure) is an upright, rigid, circular cylinder, sealed at the bottom by a diaphragm in the shape of a round plate. The liquid is incompressible and partially fills the vessel's inner volume. The system "liquid plus diaphragm" is said to consist of two partial systems. The effect of free

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ACCESSION NR: AP4009640

surface oscillations on the frequencies of the system manifests itself mainly when the column of liquid is relatively low and it is insignificant when coherence of the system is minor. The difference between partial frequency and system frequency was less than 5% for $\frac{H}{R_0} > 0.3$, $R_0 = 2m$, when the bottom was a membrane. Orig. art. has: 5 graphs,
35 formulas.

ASSOCIATION: None

SUBMITTED: 19Feb63

DATE ACQ: 12Feb64

ENCL: 02

SUB CODE: AI

NO REF SOV: 005

OTHER: 000

2/02

Card

L 09055-67
ACC NR: AP6034149

(N)

SOURCE CODE: UR/0424/66/000/005/0157/0159

22

AUTHOR: Pozhalostin, A. A. (Moscow)

ORG: none

TITLE: Determining mechanical analog parameters for axisymmetric vibration of an elastic cylindrical vessel filled with liquid

SOURCE: Inzhenernyy zhurnal. Mekhanika tverdogo tela, no. 5, 1966,
157-159TOPIC TAGS: pressure vessel, mechanical analog, vessel axisymmetric vibration, ~~cylindrical vessel~~, spheric shell structure, forced vibration, cylindric shell structureABSTRACT: An analysis is presented of the forced small axisymmetric vibration of a circular cylinder filled with a heavy ideal liquid. The cylinder bottom is made in the form of a shallow spherical shell (see Fig. 1). Vibrations are induced by harmonic displacement $u(t)$ of a support ring. It is shown that the reaction force of the vibrating liquid acting on the supporting ring can be replaced by the reaction of a system of an infinite number of parallel oscillators (see Fig. 2). The total mass of all oscillators is equal to the physical mass of the liquid in the vessel. The following equation is derived for the reduced mass m_j of the mechanical analog:

$$m_j = (L_x \cdot x_j)^2 / x_j' M x_j$$

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For a vessel with dimensions:

$$\frac{H}{R} = 6, \quad \frac{\rho}{\rho_0} = 0.364, \quad \frac{R}{h} = 500, \quad \frac{R}{R_1} = 600, \quad \frac{R_1}{R} = \frac{4}{3}, \quad R = 1.5,$$

where ρ_0 is the vessel material density, the masses of mechanical analog were found to be:

$$m_1 = 0.808 \text{ m}, \quad m_2 = 0.084 \text{ m}, \quad m_3 = 0.027 \text{ m}, \quad m_4 = 0.0119 \text{ m}, \dots$$

Orig. art. has: 2 figures and 12 formulas.

[WA No. 88]

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L 09055-67
ACC NR: AP6034149

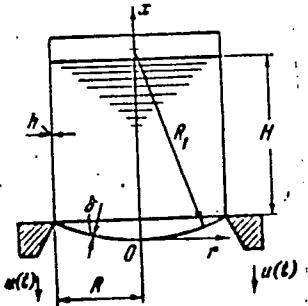


Fig. 1. Spherical shell

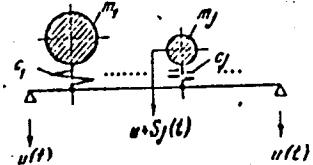


Fig. 2. Oscillator system

SUB CODE: 21/ SUBM DATE: 07Apr66/ ORIG REF: 002/ OTH REF: 001

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Pozhalostin, A.I.

K raschetu polykh vintov. Moskva, 1939. 28 p., tables, diagrs. (TSAGI. Tekhnicheskie zemetki, no. 195)

Title tr.: Design of hollow-blade propellers.

TL570, № no.195

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress,
1955.

PERSHIN, G.N., prof.; KRAFT, M.Ya., prof.; ROZENTUL, M.A., prof.;
POZHARSKAYA, A.M., starshiy nauchnyy sotrudnik;
MILOVANOVA, S.N., starshiy nauchnyy sotrudnik; BORODINA, G.M.,
starshiy nauchnyy sotrudnik; MASLOV, P.Ye., starshiy nauchnyy
sotrudnik; IVANOVSKAYA, Ye.A., mladshiy nauchnyy sotrudnik;
ARONSON, P.Yu., mladshiy nauchnyy sotrudnik; KANCHUKH, Sh.F.;
SHEYER, A.A.; ZALIOPO, M.P., spetsialist po mayushchim sredstvam

Treatment of your hair with selenium sulfide soap. Izobr.
(MIRA 17t2)
i rats. no.12:32-33 '63.

1. Zaveduyushchiy laboratoriye khimioterapii infektsionnykh zabolevaniy Vsesoyuznogo nauchno-issledovatel'skogo khimiko-farmatsevticheskogo instituta im. Ordzhonikidze (for Pershin).
2. Zaveduyushchiy laboratoriye metalloorganicheskikh soedineniy Vsesoyuznogo nauchno-issledovatel'skogo khimiko-farmatsevticheskogo instituta im. Ordzhonikidze (for Kraft).
3. Zaveduyushchiy otdelom TSentral'nogo kozhno-venerologicheskogo instituta (for Rezentul). 4. Zaveduyushchiy laboratoriye lekarstvennykh form Vsesoyuznogo nauchno-issledovatel'skogo khimiko-farmatsevticheskogo instituta im. Ordzhonikidze (for Pozharskaya). 5. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut im. Ordzhonikidze (for Milovanova, Borodina, Ivanovskaya, Aronson). 6. Tsentral'nyy kozhno-venerologicheskiv institut (for Maslov).